UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
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NOV 28 2016

Mr. Earl D. Bandy Jr.
Director, Knoxville Field Office
Office of Surface Mining Reclamation and Enforcement
John J. Duncan Federal Building
710 Locust Street, 2nd Floor
Knoxville, Tennessee 37902

SUBJECT: North Cumberland Wildlife Management Area, Tennessee Lands Unsuitable for Mining, Draft Petition Evaluation Document (PED) and Final Environmental Impact Statement (FEIS), Anderson, Morgan, and Scott Counties, Tennessee; CEQ No.: 20160251

Dear Mr. Bandy:

The U.S. Environmental Protection Agency Region 4 Office has received and reviewed the subject document and is commenting in accordance with §309 of the Clean Air Act (CAA) and §102(2)(C) of the National Environmental Policy Act (NEPA). The Office of Surface Mining Reclamation and Enforcement (OSMRE) proposes to designate those lands identified, with a modification, in the State of Tennessee's 2010 petition: a 1,200-foot corridor for 569 miles of ridgeline as lands unsuitable for surface coal mining. The modification is to allow re-mining, associated operations and road construction, and the Surface Mining Control and Reclamation Act (SMCRA)-required reclamation of 219.5 miles of highwall within the 569-mile ridgeline.

The EPA rated the Draft Environmental Impact Statement (DEIS) as 'Environmental Concerns' (EC-2), indicating its review identified new, reasonably available alternatives within the spectrum of alternatives analyzed, which could potentially reduce the environmental impacts of the proposed action. In the January 25, 2016 comment letter the EPA recommended that the OSMRE refine its preferred alternative to avoid re-mining where natural reclamation is facilitating achievement of State-designated water uses and quality, a rebound in aquatic ecosystem diversity, and the reestablishment of forested lands. This proposed avoidance is important to aquatic ecosystems and water quality within mountain-ridgeline headwaters. Additionally, the EPA recommended that the OSMRE refine its preferred alternative to consider in its 'Lands Unsuitable for Mining' (LUM) designation all undisturbed acreage associated with active permits set to expire after the official LUM designation. The EPA's DEIS review also found that insufficient information was provided to fully assess certain environmental impacts.

The OSMRE identified Alternative 4 (i.e., Expanded Corridor Designation with Potential Re-mining and Road Access) as its new preferred alternative in the FEIS (Page vii, Volume I). Under Alternative 4, the OSMRE would designate as unsuitable for surface coal mining operations 569 miles of ridgeline (1,200-foot corridor) covering 76,133 acres. Alternative 4 includes the ridgelines proposed in the State's petition, as described under Alternative 2, plus additional ridgelines identified by the OSMRE. The designation would not apply to access and haul roads as well as re-mining and reclamation activities as described under Alternative 3. Using the same methodology as used in Alternative 3 for estimating the amount of land that would be appropriate for re-mining, the OSMRE concluded that under Alternative 4, as much as 219.5 miles of highwall might be subject to future re-mining. However, the EPA noted in other sections of the FEIS that the OSMRE has identified two environmentally preferable alternatives including Alternatives 4 and 2.

The OSMRE responded to EPA's DEIS comments in the FEIS, Volume III, Appendix J, Concern Response Report. From a review of this section of the FEIS, the OSMRE did not respond to numerous EPA DEIS comments (See enclosure). In addition, it was extremely difficult to review the responses to our technical comments by the methodology used for OSMRE's responsiveness summary.

The EPA acknowledges the OSMRE's additional areas that will be designated as LUM. However, we continue to have environmental concerns for re-mining activities where natural reclamation is facilitating the achievement of State-designated water uses and quality. The EPA recommends that potential avoidance and minimization measures to aquatic ecosystems and water quality within mountain-ridgeline headwaters be further investigated by OSMRE and included in the Record of Decision (ROD). Furthermore, the EPA recommends that the OSMRE clarify its position on having two environmentally preferable alternatives in the ROD.

Should you have any questions concerning these comments, please contact Mr. Larry Long, of my staff, at long.larry@epa.gov or 404-562-9460. We appreciate the opportunity to comment on the proposed LUM designation.

Sincerely,

G. Alan Farmer
Director
Resource Conservation and Restoration Division

w/Enclosure

ENCLOSURE
Final Environmental Impact Statement (FEIS)
North Cumberland Wildlife Area,
Tennessee Lands Unsuitable for Mining (LUM), Tennessee.
CEQ No. 20160251

The EPA's DEIS letter address several environmental concerns that were not fully addressed by OSMRE in the FEIS. For purposes of being concise, the EPA shortened the full comment in the below table. The EPA's major DEIS comments and the OSMRE's responses that we could find in Volume III, Appendix J are generally as follows:

Topic	Page	ID#	Comment Type
OSME to clarify Alternative 2 re-mining volume	J-42	492063	Response confused volume with size and changes to the calculations in Table 5-24 of the FEIS are not clear
The best technology currently available and enhancement where practicable does not demonstrate or guarantee the reclamation will improve impacts associated with pre-SMCRA mining where these effects have been naturally attenuated.	J-58	492039	Partial response. OSMRE has revised the PED/EIS to include language that emphasizes that re-mining would not be done without conducting an assessment of adverse effects on areas that have naturally revegetated over the years. The goal of re-mining is to restore areas that were mined and left un-reclaimed before the passage of SMCRA. Re-mining can eliminate existing high-walls, reestablish stream channels disturbed by previous mining activities, improve water quality, and remove safety concerns.
Background levels for natural reclamation	J-60	492036	Partial response. Based on these studies, OSMRE has concluded that re-mining could help resolve existing water quality issues in Tennessee. The changes OSMRE has made ensure that OSMRE has fully considered the impact of re-mining on water quality.
The DEIS does not explain how re-mining impacts to water quality, aquatic ecosystems and wetlands will be reclaimed under SMCRA	J-61	492038	Partial response: the most comprehensive study was completed by the Pennsylvania Department of Environmental Protection in 2002. The study evaluated water quality on 112 re-mined sites with 233 pre-

			existing discharges in Pennsylvania. They evaluated loading from acidity, iron, manganese, aluminum, sulfate, and flow. They found at least 40% of all sites experienced eliminating or reducing the load. Another 50% experienced no change in water quality loading as a result of re-mining. Depending on the parameter, only 1% to 10% experienced worse post-mining loading conditions.
Address all permits set to expire after official LUM designation	J-63	492045	Response: Pursuant to 30 CFR § 762.13, lands covered by a current SMCRA permit are exempt from designation as unsuitable for surface coal mining. Thus, OSMRE cannot consider lands covered by a current permit for designation, as the commenter suggests. The designation of additional lands would require another petition process for designation.
Clarification whether an unmined permit can be designated as LUM	J-63	492046	EPA's comment abbreviated and response not complete.
OSMRE avoid approving permits received after and inconsistent with State's 2010 Petition	J-63	492048	Incomplete response: Response addresses road construction and not the issue of permits with the State's 2010 Petition.
Impacts to ridgeline mining	J-72	492070	Incomplete response: Under alternatives 3 and 4, any areas within the petition area with existing high-walls would be eligible for re-mining. The goal of that re-mining would be to eliminate existing high-walls and reestablish natural stream channels. At this time we do not know where potential re-mining might be proposed, although previously augered areas would likely not be re-mined. OSMRE would evaluate any

			re-mining proposals under the established processes and provide state and federal agencies and the public an opportunity to be heard. OSMRE's action would not place additional restrictions on surface mining outside the designation area. Thus, the impacts of such mining are outside the scope of the PED/EIS.
Provide examples of how re-mining has benefited the Pine Creek Watershed	J-76	492044	Partial response: OSMRE is unaware of any re-mining taking place in the Pine Creek watershed in Scott County, Tennessee, and therefore cannot comment on its effectiveness.
Alternative 1 impact to carbon sequestration potential compared to all six alternatives	J-79	492071	Incomplete response: OSMRE agrees with comment but does not discuss the large variances in possible extraction levels. However, under alternatives 3 and 4, re-mining that is consistent with the designation criteria would be allowed, which could have implications for carbon sequestration.
Indicate whether additional water quality monitoring stations are available for the affected area study area and for OSMRE to identify water bodies that have not been assessed within the study area.	J-81	492060	Incomplete response: Thus, it would be impossible at this point to assess impacts on a waterbody-specific basis. It is also unclear what additional information could be provided if OSMRE assessed each of the 180 named streams in the petition area. In the event that a re-mining application is received, OSMRE would conduct a multi-criteria hydrologic analysis to understand the potential for water quality impacts prior to making a decision on the application.
Use of the "mode" in table 4-8 in DEIS to describe the contamination level	J-82	492062	Partial response: OSMRE agrees with the commenter that the use of the "mode" could provide additional descriptive information about the contaminant levels. However, the

			data used was already processed and was only provided in terms of the mean and median. The raw data was not available.
…address the apparent inconsistencies in acreage from surface mining provided in Chapters 5 and 6 for Alternatives 2-6.	J-133	492066	Confusing response: OSMRE reviewed all of the acreage calculations and updated them, as appropriate, in the final PED/EIS. However, some of the suggested inconsistencies are based on measuring different things. In terms of high-walls, the different numbers reflect the total miles of highwall in the evaluation area compared to the total number of high-walls within the different alternatives. It is further delineated by the miles of highwall that could then be expected to be reclaimed, as they possess suitable coal resources, for alternatives that allow re-mining and reclamation. OSMRE added some clarifying text; however, the numbers are correct as reported.
…address the appearance of conflicting acreage information regarding the surface mining acres protected under five of the alternatives.	J-133	492049	Confusing response: In another example, table 5-23 referenced in the comment reflects the total mineable and augerable coal resources excluded by both the petition area and patch areas for alternative 2 as 54,797 acres. Whereas chapter 6 states that approximately 22,122 acres of surface mineable and augerable coal resources would be designated in the petition area under that alternative, this number does not include acreage associated with patch areas outside the petition area described in chapter 5.
…address the apparent inconsistencies in available re-mining acres provided in Chapter 3 and 6 for Alternatives 2-6.	J-133	492065	Confusing response: Response combined with #492049. The FEIS lumped different discrete comments from the DEIS into one generalized response.

Other Technical Comments

The OSMRE originally identified Alternative 3 as its preferred alternative. However, based on public and agency review and comment, the OSMRE has now identified Alternative 4 as its preferred alternative because it is believed by the OSMRE to be the most consistent with the State of Tennessee's request. Although Alternative 2 reflects the State's original request, in subsequent communications with the OSMRE, the State indicated that it would support an alternative that included re-mining because of its long-term environmental benefits. The State also indicated that re-mining would allow for the balancing of mining and conservation interests. In addition, although the State initially indicated to the OSMRE that it disagreed with the agency's methodology for independently identifying ridgelines, in subsequent communications, the State indicated that it now supports the designation of the expanded ridgelines in Alternative 4, because it would designate a larger area than the State's original proposal. Therefore, the OSMRE determined that Alternative 4 is the most consistent alternative with the State's intent. However, in the discussion on the environmentally preferable alternative, the OSMRE has identified two environmentally preferable alternatives. Alternative 2, the short-term environmentally preferable alternative, would designate the largest area of land while avoiding the impacts of re-mining and access road development, as described in "Chapter 6: Environmental Consequences." However, the long-term impacts associated with acid mine drainage and sedimentation from pre-SMCRA mine sites would continue. Alternative 4 would be considered the long-term environmentally preferable alternative because it would designate the largest area and would reduce the impacts of acid mine drainage, although there would be short-term impacts as a result of re-mining: ["*Therefore, Alternatives 2 and 4 are considered to best protect, preserve, and enhance historic, cultural, and natural resources*"].

Recommendation: The EPA notes that the statement of having two environmentally-preferred alternatives (i.e., Alternatives 2 and 4) is inconsistent with the executive summary of the FEIS. Furthermore, the OSMRE does not indicate which of these two alternatives would be used or selected for future LUM activities. The Record of Decision (ROD) should clearly state the OSMRE's overall environmentally preferred alternative.

Climate Change and Greenhouse Gas (GHG) Emissions

The FEIS appears to be referring to the Draft Guidance from CEQ on considering GHG emissions. We recommend that the Final Guidance be referenced instead, and that the FEIS not include reference points not in the Final Guidance. The EPA recommends that future supplementary environmental analysis include practicable changes to the proposal to make it more resilient to anticipated climate changes. Changing climate conditions can affect a proposed project, as well as the project's ability to meet the purpose and need presented in the EIS.